DETAILED ACTION

This action is responsive to Response/Arguments filed on February 19, 2008. Claims 1, 3-6, 8, 10-12, 14-16 and 29-35 are pending in this application. Claims 1, 3-6, 8, 10-12, 14 and 16 are amended to clarify the recited features, and claims 29-35 are added. Claims 2, 7, 9, 13 and 17-28 are canceled. This application is a new PCT National Stage application of PCT/AU04/01565 that was filed on November 12, 2004. Applicant is claiming foreign priority for the application New Zealand 529518 filed on November 13, 2003.

Status of Claims

Claims 1, 3-6, 8, 10-12, 14-16 and 29-35 are pending. Claims 1, 8, 29, 34 and 35 are independent Claims.
Claims 2, 7, 9, 13 and 17-28 are canceled.
Claims 1-3, 5, 8-10, 13-18, 21-23 are rejected under 35 U.S.C. 102(e).
Claims 4, 6, 11, 12 are rejected under 35 U.S.C. 103(a).

Response to Arguments

Applicant's arguments filed February 19, 2008 have been fully considered but they are not persuasive. See rejection details for Claims 1, 3-6, 8, 10-12, 14-16 and 29-35. Applicant argued:

1) Regarding abstract objection, applicant amended the abstract and the objection is withdrawn.

2) Regarding drawing objection, applicant amended the drawings and the objection is withdrawn.

3) Regarding Claims 21, 27 and 28 rejection under 35 U.S.C. 112, second paragraph, applicant canceled the Claims.

4) Regarding Claims 2, 7, 9, 13, 22-28 rejection under 35 U.S.C. 101, applicant canceled the claims.

5) Regarding Claims 1, 3-6, 8, 10-12 and 14-16 rejection under 35 U.S.C. 101 rejection, applicant amended the Claims and the rejection is withdrawn.

6) Applicant argues that Oross does not teach "one or multiple input movements using a sensing panel", "classify each detected movement as a particular type" applicant is arguing about the amendment, this argument is now moot in view of new ground of rejection.

7) Amended Specification does not contain underlines for the changes made.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
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> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5, 8, 10, 14-16, 29, 30 and 32-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Oross, US Patent 6,757,002.

Regarding Claim 1, Oross in 6,757,002 discloses the claimed aspect of entering input into a computing system, the method comprising the following steps detecting one or multiple input movements using a sensing panel associated with the computing system by including an array of sensors in FIG. 1B, wherein the position detection device 16 is a digitizer of the resistive-type or capacitive type, and includes one or more active layers 20 that sense finger position. (Oross, Column 4, lines 19-21); Oross discloses the claimed aspect of classifying each detected input movement as being of a particular type in FIG. 15, wherein the certain area corresponds to a certain function the function. (Oross, Column 3, 37-42, lines 42-44).

Oross discloses the claimed aspect of translating each input movements to an instruction signal by consulting a knowledge database in FIG. 15, wherein a touch pad with different specialized areas and functions are illustrated, an exemplary touchpad configuration screen on a computing system in which the operator can programmably select the manner each specialized area is to respond. In this exemplary screen, the operator selects the specialized area of interest on the touchpad and then selects one of the functions (manner) under the browser, cursor, or edit categories. Other dedicated manners or

functions are possible besides those shown in this exemplary configuration screen. Once the operator has programmed the desired specialized areas, the configuration is saved when the operator selects the "done" box. (Oross, Column 11, lines 25-35). Furthermore, there is a relation established between the area and assigned function to that area. Applicant should duly note that Oross discloses a look up table which is a relational database.

Oross discloses the claimed aspect of transmitting the instruction signal to the computing system in FIG. 1B, in response to the detected finger placement on the detection device 16 at a given time, the controller 22 sends control commands to a host computing device 12 through an interface 28. (Oross, Column 4, lines 42-45).

Oross discloses the claimed aspect of wherein translation of a detected input movement to an instruction signal involves a main process and one or more sub-processes, wherein each sub-process is invoked by the main process in response to a particular type of detected input movement, wherein an operator places a finger along the protective surface 26 of the track pad apparatus 10. The position of such finger is detected by the active layer(s) 20 with signals being routed to the controller 22. Control signals then are forwarded to the host computing apparatus 12 indicative of the finger position. As the operator moves the finger along the protective surface 26, the control signal content changes to be indicative of the new finger position. In a preferred embodiment, the host computing apparatus 12 includes non-volatile memory and a processor. The memory stores a computer program (e.g.,

device driver; system extension) which is executed by the processor to process the control signals received from the track pad apparatus. Specifically, the processor typically generates cursor control commands in response to the control signals. For example, as the operator moves a finger in a direction 30, a cursor 14 on a display screen 32 of the host computing apparatus 12 is moved in a corresponding direction 37. The magnitude and speed of the motion 34 is determined by the executed program or user-selectable parameters accessed by the executed program. In an alternative embodiment, cursor control commands are generated directly by the track pad apparatus 10. (Oross, Columns 4, 5 lines 62-17). (Oross, Column 10, lines 47-58).

Regarding Claim 3, most of the limitations have been met in the rejection of Claim 1. See details for Claim 1 rejection. Oross, discloses the claimed aspect of a method of entering input into a computing system, wherein each particular type of input movement is associated with operation of the sensing panel in any one of the following modes: keyboard modes, mouse modes, (c) scripting modes, (d) device modes, (e) customer modes and (f) idle mode, wherein any key combination, mouse clicking combination, key and clicking combination, or even a macro may be programmed to correspond to position or motion detection within an associated programmable, special touch sensing area 36, 38. For example, a utility program (see FIG. 15) may be implemented with the device driver to allow the operator to associate a

programmable special touch sensing area to a program launch operation, to a user defined menu of buttons, to a sequence of keys and clicks, to any of the keyboard function keys or other keyboard keys, to any of the keypad keys (e.g., cursor arrow keys, insert, delete, home, end, page up, page down), any of the menu commands in any of the application programs. (Oross, Column 7, lines 43-56). Furthermore, Oross discloses the track pad is integrated into a keyboard or is integrated into a notebook computer case in the vicinity of the keyboard it is common for a user to inadvertently brush the touch sensitive track pad while typing at the keyboard. This causes the on-screen cursor to be moved in the midst of typing, and can become a frustration to the user. Accordingly, an on-off button 33 is provided adjacent to the track pad surface (see FIG. 2). The user readily turns the track pad on and off as needed. While the button 33 is on the off position, the track pad does not send control signals to the computer. Thus, when the operator brushes over the track pad surface 26 the cursor 14 is not inadvertently relocated. When the button 33 is in the on position the track pad 10 functions to sense operator touch and route signals to the computer 12 for control of the on-screen cursor 14. In some embodiments, a light emitting diode 35 or another visual indicator is included in the vicinity of the on-off button 33 to identify the status of the on-off button 33. In other embodiments the button position identifies the on-off status. (Oross, Column 5, lines 20-39).

Regarding Claim 5, most of the limitations have been met in the rejection of Claim 29. See details for Claim 29 rejection. Oross discloses the claimed aspect of each invoked sub process claims a region of the sensing panel input movements received via the claimed of the sensing panel will be translated by the sub process having claimed the region in FIG.2, wherein the specialized functions pertain to dedicated or programmed functions responsive to detection of touch within special touch sensing areas 36, 38 (see FIG. 2 and description below). When on, such functions are active. (Oross, Column 5, lines 41-45). Furthermore, in FIG. 13 main touch sensed area and special functions are illustrated.

Regarding Claim 8, Oross discloses the claimed aspect of an input system, wherein a system which implements the method includes a main touch area capable of sensing position, and at least one specialized touch area capable of sensing position. The main touch sensing area is capable of generating commands indicative of position in the first manner. The at least one specialized touch area is capable of generating commands indicative of position in the second manner. (Oross, Column 2, lines 1-7). The rejection of Claim 1 applies to Claim 8. See Claim 8 rejection details.

Regarding Claim 10, most of the limitations have been met in the rejection of Claim 8. See details for Claim 8 rejection. The rejection of Claim 3 applies to Claim 10.

Regarding Claim 14, most of the limitations have been met in the rejection of Claim 8. See details for Claim 8 rejection. Oross discloses the claimed aspect of the input movements detected are the movements of the movement indicating device, the movement of which across the surface of the panel indicates an instruction signal to move in the direction indicated with the movement indicating device in FIG. 1B, wherein operator moves a finger in a direction 30, a cursor 14 on a display screen 32 of the host computing apparatus 12 is moved in a corresponding direction 37. The magnitude and speed of the motion 34 is determined by the executed program or user-selectable parameters accessed by the executed program. In an alternative embodiment, cursor control commands are generated directly by the track pad apparatus 10. (Oross, Column 5, lines 10-17).

Regarding Claims 15 and 16, most of the limitations have been met in the rejection of Claim 14. See details for Claim 14 rejection. Oross discloses the claimed aspect of an application of pressure to the movement indicating device causes an input movement which is interpreted by the processor as indicating an instruction signal to move downwards, and reducing the

pressure applied to the movement indicating device causes an input movement which is interpreted by the processor as indicating an instruction signal to move upwards and amount of pressure being applied to the movement indicating device is detected by reference to the size of an area of contact between the fingers or movement indicating device and the surface of the panel, or by reference to change in size of an area of contact between the fingers or movement indicating device and the surface of the panel, wherein the track pad include detecting specific movement patterns and finger combinations. For example, it is known to detect a tapping to emulate the clicking or double-clicking of a mouse button. It also is known to detect an end of surface position and translate such position to mean continue moving the cursor in the same direction. Further, it is known to detect multiple fingers, where one finger is used to control cursor movement and the second finger is used to correspond to a mouse button. For example, the two-finger combination may be used to implement a drag and drop function (i.e., the dragging of an icon or other selected display item(s) to another area of the screen where they are dropped/relocated). In addition, it is known to combine a motion pattern on a track pad with a clicking of an adjacent clicking device to perform the drag and drop function. (Oross, Column 1, lines 34-49). Applicant should duly note that performing mouse function by tapping creates different pressure than just moving the cursor. Furthermore, Oross discloses in FIG.14 that a specialized touch sensing area is dedicated to correspond to a window scrolling function. (Oross, Column 3, lines 43-45).

Regarding Claim 29, most of the limitations have been met in the rejection of Claim 3. See details for Claim 3 rejection. Oross discloses the claimed aspect of the main process and one or more sub-processes together form a hierarchical control structure in which the main process determines whether an input movement corresponds to a prompt to invoke a particular mode, and where a particular mode is indicated, the main process invokes a sub-process in that mode, wherein in FIG. 13 when an operator touches an active track pad apparatus 12, at step 94 a determination is made as to whether it was the main touch area 34. If so, then at step 96, the sensed position is processed in a first manner, (e.g., normal). If the area touched was not the main touch sense area 34 then at step 98 a determination is made as to whether the specialized functions are enabled. If not enabled, then the response depends on the embodiment. If the specialized touch sense areas are to function like the main touch sense area, then step 96 is performed--the sensed position is processed in the first manner. Alternatively, the touch sensing is ignored at step 100. (Oross, Column 10, lines 47-58).

Regarding Claim 30, most of the limitations have been met in the rejection of Claim 5. See details for Claim 5 rejection. Oross discloses the claimed aspect of once the claiming sub process is complete, the claimed region

reverts to an unclaimed status in FIG.13, wherein activate cue is deactivated cue when process sensed position in specialized manner.

Regarding Claim 32, most of the limitations have been met in the rejection of Claim 8. See details for Claim 8 rejection. Oross discloses the claimed aspect of the sensing panel further includes a display layer for guiding user input, wherein cue indicating active operation within special touch sensing area is disclosed. (Oross, Columns 9-10, lines 45-33).

Regarding Claim 33, most of the limitations have been met in the rejection of Claim 8. See details for Claim 8 rejection. Oross discloses the claimed aspect of wherein the knowledge database is dynamic to enable the association between an input movement and a corresponding instruction signal to be redefined to adapt the input system to preferences of an individual user in FIG.2, FIG.9, FIG.10 and FIG. 15, wherein an exemplary touchpad configuration screen is illustrated by which a user is able to program specialized manner cases in which the track pad apparatus responds. (Oross, Column 7, lines 35-65).

Regarding Claim 34, Oross discloses the claimed aspect of computer readable medium with a computer program in FIG. 1A. The rejection for Claim 1 applies to Claim 34. See rejection details for Claim 1.

Regarding Claim 35, Oross discloses the claimed aspect of an input device in FIG. 1A, B, FIG. 2. The rejection for Claim 1 applies to Claim 35. See rejection details for Claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oross, US 6,633,865 B1, in view of Geaghan et al., US 20030063073 A1.

Regarding Claims 4-6, most of the limitations have been met in the rejection of Claims 1, 5 and 29. See details for Claims 1, 5 and 29 rejection. Oross does not specifically teach the claimed aspect of main process manages the one or more sub-processes by assigning a priority value to each sub process such that a sub process having a minor priority value does not impede a sub process having a major priority value, inputs received via a region having been claimed

by a sub-process are translated only by sub-process having claimed that region of the sensing panel, or by a sub-process having a higher value than the sub-process having claimed the region of the sensing panel. However, Geaghan in US 20030063073 achieves the claimed aspect of main process manages the one or more sub-processes by assigning a priority value to each sub process such that a sub process having a minor priority value does not impede a sub process having a major priority value, inputs received via a region having been claimed by a sub-process are translated only by sub-process having claimed that region of the sensing panel, or by a sub-process having a higher value than the sub-process having claimed the region of the sensing panel, wherein a touch panel systems and methods are disclosed that can temporally overlapping touch inputs from single touch inputs so that valid touch position coordinates can be determined. Touch panel systems and methods of the present invention can distinguish overlapping touches by comparing signal magnitudes to specified thresholds, by comparing the rates of change of signal magnitudes or measured positions to determined parameters, by locating the proximity a calculated location to icons or other such active areas, and the like. Because touch panel systems and methods of the present invention can discriminate single touches from double touches, they can be used in multiple user applications such as multiplayer games as well as in applications that may be subject to rapidly successive or overlapping touch inputs. (Geaghan, See Abstract). Applicant should duly note that priority is based on Geaghan's method and system on by locating the proximity a calculated location to icons or other such active areas. It

would be obvious to one of ordinary skill in the art at the time of the invention to add the Geaghan's priority aspect to Oross's touch pad, because if the areas ever overlap proximity calculation determines the priority of the icon selection and this would provide in user applications such as games rapid successive or overlapping touch inputs to be distinguish.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oross, US 6,633,865 B1, in view of Umeya et al., US 6,028,581.

Regarding Claims 11 and 12, most of the limitations have been met in the rejection of Claim 8. See details for Claim 8 rejection. Oross does not teach specifically the claimed aspect of sensors for detecting input movements are complementary metal oxide semiconductor sensors and light detecting aspect, the sensors detect light patterns which are transformed into images and an input movement is detected when a first image differs from a subsequently formed second image. However, Umeya discloses the claimed aspect of sensors for detecting input movements are complementary metal oxide semiconductor sensors and light detecting aspect, sensors detect light patterns which are transformed into images and an input movement is detected when a first image differs from a subsequently formed second image in FIG.7, wherein second transistor is a TFT switch that forms part of a metal-oxide semiconductor (MOS) image sensor array including a photo diode and a micro lens. The second transistor causes an input to be sensed by the LCD. The inputs sensed by the

LCD include image inputs and inputs from a pen and a human touch. The first and second transistors are fabricated on the same side of the same substrate. (Umeya, See Abstract).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Oross's touch panel input with Umaya's metal-oxide semiconductor to capture image. The motivation to combine Oross's touch panel input with Umaya's metal-oxide semiconductor to capture image would be the built-in self-scan feature of the ASR image sensor which requires no external shift register. Another advantage would be MOS processing is used which should enable image sensors to be made at less cost. A third possible advantage is that the MOS ASR image sensor can operate at lower light levels than conventional bipolar image sensors. Applicant should duly note that Metal-oxide semiconductor sensors are using light to detect movements.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Slater, et al., US 4,413,314, 11/01/1983, "Industrial process control system", touch-responsive panel that overlies the CRT display screen, execute command sequence for entering high priority commands into the system.

2) Allen, et al., US 6,239,389, 05/29/2001, "Object position detection system and method".

3) GILLESPIE, DAVID W. et al., US 20020093491, 07/18/2002, "OBJECT POSITION DETECTOR WITH EDGE MOTION FEATURE AND GESTURE RECOGNITION".

4) Zadesky, Stephen Paul, et al., US 20030076306 A1, 04/24/2003, "Touch pad handheld device".

5) Geaghan, Bernard O. et al., US 20040140993 A1, 07/22/2004, "Touch simulation system and method".

6) Cok, US 7,042,444, 05/09/2006, "OLED display and touch screen".

7) Geaghan, et al., US 7,254,775, 08/07/2007, "Touch panel system and method for distinguishing multiple touch inputs".

8) Yujin Tsukada, April 20-25, 2002, Layered Touch Panel: The Input Device with Two Touch Panel Layers, Pages 584-585.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ECE HUR whose telephone number is (571) 270-1972. The examiner can normally be reached on Mon-Thurs 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM BASHORE can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May13, 2008

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